

## PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT4946600

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
DARBY HERING	05/05/2011
MITCH ZAKIN	05/13/2011
GEORGIY LEVCHUK	05/04/2011
NATHAN SCHURR	04/27/2011
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	APTIMA, INC.
<b>Street Address:</b>	12 GILL STREET
<b>Internal Address:</b>	STE. 1400
<b>City:</b>	WOBURN
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	01801
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15952205
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(781)935-4385
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	781-935-3966
<b>Email:</b>	patent@aptima.com
<b>Correspondent Name:</b>	APTIMA, INC.
<b>Address Line 1:</b>	12 GILL STREET
<b>Address Line 2:</b>	STE. 1400
<b>Address Line 4:</b>	WOBURN, MASSACHUSETTS 01801
<b>NAME OF SUBMITTER:</b>	RACHEL BURRISS
<b>SIGNATURE:</b>	/Rachel Burriss/
<b>DATE SIGNED:</b>	05/04/2018
<b>Total Attachments: 13</b>	
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source=APTI1003PPPU\_AppAssign\_LevchukSchurr\_signed#page5.tif

## PATENT APPLICATION ASSIGNMENT

Whereas we, the undersigned, <sup>DEH</sup>~~HERKING~~ and MITCH ZAKIN, hereby have made certain inventions or discoveries (or both) set forth in an application for Letters Patent with the United States of America and/or the International Bureau of the World Intellectual Property Organization entitled SYSTEMS AND METHODS OF POWER MANAGEMENT, identified as Attorney Docket No. APTI1003PPPU, and which application was filed on April 18, 2011 and Assigned Application No. 13/088,607. A draft of an Abstract of the inventions or discoveries is included at Attachment A.

In the event that the filing date and/or Application No. are not entered above at the time we executed this document, and if such information is deemed necessary, we hereby authorize and request our attorney, John J. Brooks III of Aptima, 12 Gill Street, Suite 1400, Woburn, MA 01801, to insert above the filing date and/or Application No. of said application.

Whereas Aptima, Inc., a Massachusetts Corporation having a place of business at 12 Gill Street, Suite 1400, Woburn, MA 01801, and which, together with its successors and assigns, is hereinafter called "Assignee," is desirous of acquiring the title, rights, benefits and privileges hereinafter recited;

Now, therefore, for valuable consideration furnished by Assignee to us, receipt and sufficiency of which we hereby acknowledge, we hereby, without reservation:

1. Assign, transfer and convey to Assignee the entire right, title and interest in and to said inventions and discoveries, said application for Letters Patent of the United States of America, any and all other applications for Letters Patent on said inventions and discoveries in whatsoever countries, including all divisional, renewal, substitute, continuation, reissue, re-examination and Convention applications based in whole or in part upon said inventions or discoveries, or upon said applications, and any and all Letters Patent, reissues, reexaminations, and extensions of Letters Patent granted for said inventions and discoveries or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said discoveries, said applications and said Letters Patent and any provisional applications from which priority is claimed in said Letters Patent;

2. Authorize Assignee to file patent applications in any or all countries on any or all of said inventions and discoveries in my name or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention or otherwise;

3. Authorize and request the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all

Init.: \_\_\_\_\_, \_\_\_\_\_, <sup>DEH</sup>\_\_\_\_\_

said Letters Patent to Assignee, as assignee of the entire right, title and interest therein or otherwise as Assignee may direct;

4. Warrant that I have not knowingly conveyed to others any right in said inventions, discoveries, applications or patents or any license to use the same or to make, use or sell anything embodying or utilizing any of said inventions or discoveries; and that I have good right to assign the same to Assignee without encumbrance;

5. Bind my heirs, legal representatives and assigns, as well as myself, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to me or them, all acts reasonably serving to assure that the said inventions and discoveries, the said patent applications and the said Letters Patent shall be held and enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by me, my heirs, legal representatives and assigns if this assignment had not been made; and particularly to execute and deliver to Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to me relating to said inventions and discoveries or the history thereof; and to furnish Assignee with any and all documents, photographs, models, samples and other physical exhibits in my control or in the control of my heirs, legal representatives or assigns which may be useful for establishing the facts of my conceptions, disclosures, and reduction to practice of said inventions and discoveries.

In testimony of which we have each executed this Assignment on the date indicated above each of our respective names.

Dated \_\_\_\_\_

\_\_\_\_\_  
Georgiy Levchuk

\_\_\_\_\_  
(Residential Address)

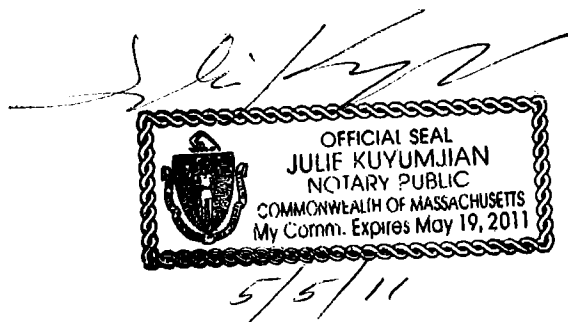
Dated \_\_\_\_\_

\_\_\_\_\_  
Nathan Schurr

\_\_\_\_\_  
(Residential Address)

Init.: \_\_\_\_\_, \_\_\_\_\_, , \_\_\_\_\_

Dated 5/5/11



Dated \_\_\_\_\_

Darby E. Herking  
Darby E. Herking  
DEH

7 Albion Pl. #2, Charlestown, MA 02129  
(Residential Address)

\_\_\_\_\_  
Mitch Zakin

\_\_\_\_\_  
(Residential Address)

Init.: \_\_\_\_\_, \_\_\_\_\_, DEH, \_\_\_\_\_

## ATTACHMENT A

### DRAFT OF ABSTRACT:

A method for power management comprising inferring a user behavior from an action, inferring a mission state from the action and an event, forecasting a forecasted action from the user behavior and the mission state and outputting an instruction to modify a power resource allocation based on the forecasted action. A processor based assembly for power management of at least one device comprising a means to infer a user behavior from an action, a means to infer a mission state from the action and an event, a means to forecast and a means to plan power management from the inferred information. In some embodiments, the systems and methods apply pattern recognition algorithms and pattern learning algorithms to manage the power allocation to power consuming devices.

Init.: \_\_\_\_\_, \_\_\_\_\_, DEL, \_\_\_\_\_

## PATENT APPLICATION ASSIGNMENT

Whereas we, the undersigned, GEORGIY LEVCHUK, NATHAN SCHURR, DARBY E. HERRING and MITCH ZAKIN, hereby have made certain inventions or discoveries (or both) set forth in an application for Letters Patent with the United States of America and/or the International Bureau of the World Intellectual Property Organization entitled SYSTEMS AND METHODS OF POWER MANAGEMENT, identified as Attorney Docket No. APT11003PPPU, and which application was filed on April 18, 2011 and Assigned Application No. 13/088,607. A draft of an Abstract of the inventions or discoveries is included at Attachment A.

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Now, therefore, for valuable consideration furnished by Assignee to us, receipt and sufficiency of which we hereby acknowledge, we hereby, without reservation:

1. Assign, transfer and convey to Assignee the entire right, title and interest in and to said inventions and discoveries, said application for Letters Patent of the United States of America, any and all other applications for Letters Patent on said inventions and discoveries in whatsoever countries, including all divisional, renewal, substitute, continuation, reissue, re-examination and Convention applications based in whole or in part upon said inventions or discoveries, or upon said applications, and any and all Letters Patent, reissues, reexaminations, and extensions of Letters Patent granted for said inventions and discoveries or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said discoveries, said applications and said Letters Patent and any provisional applications from which priority is claimed in said Letters Patent;

2. Authorize Assignee to file patent applications in any or all countries on any or all of said inventions and discoveries in my name or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention or otherwise;

3. Authorize and request the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all

Init.: My, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

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said Letters Patent to Assignee, as assignee of the entire right, title and interest therein or otherwise as Assignee may direct;

4. Warrant that I have not knowingly conveyed to others any right in said inventions, discoveries, applications or patents or any license to use the same or to make, use or sell anything embodying or utilizing any of said inventions or discoveries; and that I have good right to assign the same to Assignee without encumbrance;

5. Bind my heirs, legal representatives and assigns, as well as myself, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to me or them, all acts reasonably serving to assure that the said inventions and discoveries, the said patent applications and the said Letters Patent shall be held and enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by me, my heirs, legal representatives and assigns if this assignment had not been made; and particularly to execute and deliver to Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to me relating to said inventions and discoveries or the history thereof; and to furnish Assignee with any and all documents, photographs, models, samples and other physical exhibits in my control or in the control of my heirs, legal representatives or assigns which may be useful for establishing the facts of my conceptions, disclosures, and reduction to practice of said inventions and discoveries.

In testimony of which we have each executed this Assignment on the date indicated above each of our respective names.

Dated \_\_\_\_\_

\_\_\_\_\_  
Georgiy Levchuk

\_\_\_\_\_  
(Residential Address)

Dated \_\_\_\_\_

\_\_\_\_\_  
Nathan Schurr

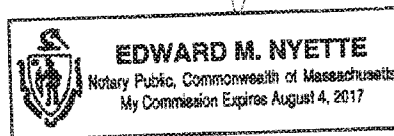
\_\_\_\_\_  
(Residential Address)

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On this 13<sup>th</sup> day of MAY, 20 11, before me, the undersigned notary public, personally appeared MITCH ZAKIN, proved to me through satisfactory evidence of identification, which were MA DRIVERS LICENSE, to be the person whose name is signed on the preceding or attached document, in my presence.

Debra L. McNulty  
My commission expires: March 23, 2012



Dated \_\_\_\_\_

Darby E. Herring

\_\_\_\_\_  
(Residential Address)

Dated 5/13/11

Mitch Zakin  
Mitch Zakin

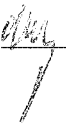
6 Abbott Bridge Drive  
(Residential Address) Andover, MA 01810

Init. guy \_\_\_\_\_

## ATTACHMENT A

### DRAFT OF ABSTRACT:

A method for power management comprising inferring a user behavior from an action, inferring a mission state from the action and an event, forecasting a forecasted action from the user behavior and the mission state and outputting an instruction to modify a power resource allocation based on the forecasted action. A processor based assembly for power management of at least one device comprising a means to infer a user behavior from an action, a means to infer a mission state from the action and an event, a means to forecast and a means to plan power management from the inferred information. In some embodiments, the systems and methods apply pattern recognition algorithms and pattern learning algorithms to manage the power allocation to power consuming devices.

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2. Authorize Assignee to file patent applications in any or all countries on any or all of said inventions and discoveries in my name or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention or otherwise;

3. Authorize and request the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all

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said Letters Patent to Assignee, as assignee of the entire right, title and interest therein or otherwise as Assignee may direct;

4. Warrant that I have not knowingly conveyed to others any right in said inventions, discoveries, applications or patents or any license to use the same or to make, use or sell anything embodying or utilizing any of said inventions or discoveries; and that I have good right to assign the same to Assignee without encumbrance;

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In testimony of which we have each executed this Assignment on the date indicated above each of our respective names.

Dated 5/4/11

  
Georgiy Levchuk

3 Cherry Ln S. Grafton MA 01560  
(Residential Address)

Dated 4/27/11

  
Nathan Schurr

88 Mt. Vernon St. Malden, MA  
(Residential Address)

02148

Init.: NS, GL, \_\_\_\_\_, \_\_\_\_\_

On this 27<sup>th</sup> day of April, 2011, before me, the undersigned notary public, personally appeared Nathan Schurr, proved to me through satisfactory evidence of identification, which were Massachusetts Drivers License, to be the person whose name is signed on the preceding or attached document, in my presence.

Debra L. McNeely  
Debra L. McNeely  
My commission expires: March 23, 2012

Dated \_\_\_\_\_

\_\_\_\_\_  
Darby E. Herring

\_\_\_\_\_  
(Residential Address)

Dated \_\_\_\_\_

\_\_\_\_\_  
Mitch Zakin

\_\_\_\_\_  
(Residential Address)

Init.: NS, GL, \_\_\_\_\_, \_\_\_\_\_

On this 4th day of May, 2011, before me, the undersigned notary public, personally appeared Georgiy Levchuk, proved to me through satisfactory evidence of identification, which were Massachusetts Drivers License, to be the person whose name is signed on the preceding or attached document, in my presence.

Debra L. McNeely  
Debra L. McNeely  
My commission expires: March 23, 2012

Dated \_\_\_\_\_

\_\_\_\_\_  
Darby E. Herring

\_\_\_\_\_  
(Residential Address)

Dated \_\_\_\_\_

\_\_\_\_\_  
Mitch Zakin

\_\_\_\_\_  
(Residential Address)

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## ATTACHMENT A

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A method for power management comprising inferring a user behavior from an action, inferring a mission state from the action and an event, forecasting a forecasted action from the user behavior and the mission state and outputting an instruction to modify a power resource allocation based on the forecasted action. A processor based assembly for power management of at least one device comprising a means to infer a user behavior from an action, a means to infer a mission state from the action and an event, a means to forecast and a means to plan power management from the inferred information. In some embodiments, the systems and methods apply pattern recognition algorithms and pattern learning algorithms to manage the power allocation to power consuming devices.

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